

Set	Items	Description
? e au=krieg, ar?		

Ref	Items	Index-term
E1	1	AU=KRI EG, ANDREAS H.
E2	1	AU=KRI EG, ANJA
E3	0	*AU=KRI EG, AR?
E4	1	AU=KRI EG, ARI BERT
E5	7	AU=KRI EG, ARTHUR
E6	1	AU=KRI EG, ARTHUR F.
E7	11	AU=KRI EG, ARTHUR F.
E8	64	AU=KRI EG, ARTHUR M
E9	251	AU=KRI EG, ARTHUR M
E10	2	AU=KRI EG, B
E11	249	AU=KRI EG, B.
E12	4	AU=KRI EG, B. L.

Enter P or PAGE for more

? s e1-e12	Items	Index-term
	1	AU=KRI EG, ANDREAS H.
	1	AU=KRI EG, ANJA
	0	*AU=KRI EG, AR?
	1	AU=KRI EG, ARI BERT
	7	AU=KRI EG, ARTHUR
	1	AU=KRI EG, ARTHUR F.
	11	AU=KRI EG, ARTHUR F.
	64	AU=KRI EG, ARTHUR M
	251	AU=KRI EG, ARTHUR M
	2	AU=KRI EG, B
	249	AU=KRI EG, B.
	4	AU=KRI EG, B. L.

S1 592 E1-E12

? s s1 and tcgtcggtttgacgtttgtcgtt	Items	Index-term
	592	S1
	2	TOGTGCGTTTGACGTTTGTGCGTT
	0	S1 AND TOGTGCGTTTGACGTTTGTGCGTT

? s s1 and phosphodi ester

592 S1

37178 PHOSPHODI ESTER

S3 13 S1 AND PHOSPHODI ESTER

? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S4 11 RD (unique items)

? t s4/3,k/1-11

>>>KWC option is not available in file(s): 399

4/3,K1 (item 1 from file: 98)

DIALOG(R) File: 98:General Sci Abs

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02515609 H.W. WILSON RECORD NUMBER: BGS1 93015609

Modification of antisense phosphodi ester oligodeoxynucleotides by a 5' cholesterol moiety increases cellular association and improves efficacy.

Krieg, Arthur M  
Tonkinson, John; Matson, Sara

Proceedings of the National Academy of Sciences of the United States of America (Proc Natl Acad Sci U S A) v. 90 (Feb. 1 '93) p. 1048-52  
SPECIAL FEATURES: bibliogr ISSN: 0027-8424

LANGUAGE: English

COUNTRY OF PUBLICATION: United States

Modification of antisense phosphodiester oligodeoxynucleotides by a 5' cholesterol moiety increases cellular association and improves efficacy.

Krieg, Arthur M

4/3, K/2 (Item 1 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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150258230 CA: 150(13)258230u PATENT

Combination motif immune stimulatory oligonucleotides with improved activity

INVENTOR(AUTHOR): Uhlmann, Eugen; Krieg, Arthur M; Hanson, Douglas Charles; Samulowitz, Ulrike

LOCATI ON: USA

ASSIGNEE: Pfizer Inc.; Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH.

PATENT: PCT International; WO 20092215 A1 DATE: 20090219

APPLI CATI ON: WO 20081B2102 (20080805) \*US 2007PV964477 (20070813)

PAGES: 73pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

IPC/8 + Level	Value	Position	Status	Version	Action	Source	Office
A61K-0031/7088	A	I	F	B	20060101	H	EP
C12N-0015/11	A	I	L	B	20060101	H	EP

DESI GNATED COUNTRI ES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;

BW; BY; CZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES;

FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN;

KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MK;

MM; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG;

SK; SL; SM; ST; SV; SY; TJ; TM; TN; TR; DESI GNATED REGI ONAL: AT; BE; BG; CH;

CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV;

MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;

GT; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ;

TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

4/3, K/3 (Item 2 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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145291047 CA: 145(15)291047 PATENT

Immunostimulatory oligonucleotides with stabilized internucleotide linkage for treating cancer, allergy, asthma and infection

INVENTOR(AUTHOR): Krieg, Arthur M; Samulowitz, Ulrike; Vollmer, Joerg

LOCATI ON: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International; WO 200691915 A2 DATE: 20060831

APPLI CATI ON: WO 2006US6778 (20060224) \*US 2005PV655931 (20050224)

PAGES: 93pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

CLASS:	61K-000/A
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DESI GNATED COUNTRI ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;

BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB;

GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LC; LK;

LR; LS; LT; LU; LV; LY; MA; MD; MG; MK; MN; MW; MZ; NA; NG; NI; NO; NZ;

OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR;

TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA DESI GNATED REGI GNAL: AT; BE; BG; CH  
 CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC;  
 NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML;  
 MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; NA; SD; SL; SZ; TZ; UG; ZM;  
 ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

4/3, K/4 (Item 3 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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142462266 CA: 142(25)462266Z PATENT

CpG immunostimulatory nucleic acids and oligonucleotide analogs for enhancing immune response of vaccines against infection, allergy and cancer

INVENTOR(AUTHOR): Uhlmann, Eugen; Vollmer, Joerg; Krieg, Arthur M; Noll, Bernhard D.

LOCATI ON: Germany,

ASSI GNEE: Col ey Pharmaceutical G.m.b.H.; Col ey Pharmaceutical Group, Inc.

PATENT: PCT International ; WO 200542018 A2 DATE: 20050512

APPLI CATI ON: WO 2004US36240 (20041029) \*US 2003PV516193 (20031030)

PAGES: 113 pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

CLASS: A61K 039/39A; A61P-031/00B; A61P-037/08B; A61P-035/00B

DESI GNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
 BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;  
 GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;  
 LT; LU; LV; MA; MD; MG; MN; MW; MK; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;  
 PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;  
 UZ; VC; VN; YU; ZA; ZM; ZW DESI GNATED REGI GNAL: BW; GH; GM; KE; LS; MW;  
 NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;  
 BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL;  
 PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR;  
 NE; SN; TD; TG

4/3, K/5 (Item 4 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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142372464 CA: 142(20)372464H PATENT

Compositions comprising immunostimulatory nucleic acid-lipoprophilic conjugates and antigen or therapeutic agent for treating allergy, cancer, infection and autoimmune disease

INVENTOR(AUTHOR): Vollmer, Joerg; Krieg, Arthur M; Uhlmann, Eugen

LOCATI ON: USA

ASSI GNEE: Col ey Pharmaceutical Group, Inc.; Col ey Pharmaceutical GmbH

PATENT: PCT International ; WO 2005032059 A2 DATE: 20050407

APPLI CATI ON: WO 2004US31748 (20040927) \*US 2003PV505977 (20030925)

PAGES: 120 pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

CLASS: A61K-047/48A

DESI GNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
 BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;  
 GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;  
 LT; LU; LV; MA; MD; MG; MN; MW; MK; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;  
 PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;  
 UZ; VC; VN; YU; ZA; ZM; ZW DESI GNATED REGI GNAL: BW; GH; GM; KE; LS; MW;  
 NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;  
 BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL;  
 PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR;  
 NE; SN; TD; TG

4/3, K/6 (Item 5 from file: 399)  
 DI ALCG(R) File 399: CA SEARCH(R)  
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140230578 CA: 140(15)230578h PATENT  
 Sequences of immunostimulatory oligonucleotides and therapeutic use for  
 immune related diseases  
 INVENTOR/AUTHOR: Krieg, Arthur M.; Samowitz, Ulrike; Vollmer, Jorg;  
 Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert  
 LOCATI ON: USA  
 ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH  
 PATENT: PCT International ; WO 200416805 A2 DATE: 20040226  
 APPLI CATI ON: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US  
 PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)  
 PAGES: 276 pp. CODEN: PI XXD2 LANGUAGE: English  
 PATENT CLASSIFI CATI ONS:  
 CLASS: C12Q 000/0A  
 DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
 SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; US; UZ; VC; VN; YU;  
 ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; DESIGNED REGIONAL: GH; GM; KE;  
 LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK;  
 EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;  
 BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

4/3, K/7 (Item 6 from file: 399)  
 DI ALCG(R) File 399: CA SEARCH(R)  
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138203655 CA: 138(14)203655h PATENT  
 Oligonucleotides containing stimulatory phosphorothioate motif and  
 neutralizing motif for treating infections, allergies and cancers  
 INVENTOR/AUTHOR: Krieg, Arthur M.; Vollmer, Jorg; Uhlmann, Eugen  
 LOCATI ON: USA  
 ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH.  
 ; University of Iowa Research Foundation  
 PATENT: PCT International ; WO 200315711 A2 DATE: 20030227  
 APPLI CATI ON: WO 2002US26468 (20020819) \*US PV313273 (20010817) \*US  
 PV393952 (20020703)  
 PAGES: 115 pp. CODEN: PI XXD2 LANGUAGE: English  
 PATENT CLASSIFI CATI ONS:  
 CLASS: A61K 000/A  
 DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SD; SE;  
 SG; SI; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ;  
 BY; KG; KZ; MD; RU; TJ; TM; DESIGNED REGIONAL: GH; GM; KE; LS; MW; MZ; SD;  
 SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR;  
 GB; GR; IE; IT; LU; MC; NL; PT; SE; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;  
 GQ; GW; ML; MR; NE; SN; TD; TG

4/3, K/8 (Item 7 from file: 399)  
 DI ALCG(R) File 399: CA SEARCH(R)  
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135018544 CA: 135(2)18544w PATENT  
 Immunostimulatory nucleic acid molecules

I INVENTOR(AUTHOR): Krieg, Arthur M; Kline, Joel N.  
 LOCATI ON: USA  
 ASSI GNEE: University of Iowa Research Foundation; Coley Pharmaceutical Group, Inc.; United States Dept. of Health and Human Services  
 PATENT: United States ; US 6239116 B1 DATE: 20010529  
 APPLI CATION: US 960774 (19971030) \*US 738652 (19961030)  
 PAGES: 74 pp., Cont.-in-part of U.S. Ser. No. 738,652. CODEN: USXXAM  
 LANGUAGE: English  
 PATENT CLASSIFI CATI CNS:  
 CLASS: 514044000; A61P-037/06A

4/3, K/9 (Item 8 from file: 399)

DI ALCG(R) Fi le 399: CA SEARCH(R)  
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133349133 CA: 133(25) 349133e PATENT  
 Screening for immunostimulatory DNA functional modifiers  
 I INVENTOR(AUTHOR): Noll, Berhard O; Schetter, Christian; Krieg, Arthur M  
 LOCATI ON: Germany,  
 ASSI GNEE: CPG Immunopharmaceuticals GmbH; University of Iowa Research Foundation  
 PATENT: PCT International ; WO 200067023 A1 DATE: 20001109  
 APPLI CATION: WO 2000US11697 (20000428) \*US PV131830 (19990429) \*US PV186845 (20000303)  
 PAGES: 95 pp. CODEN: PI XXD2 LANGUAGE: English  
 PATENT CLASSIFI CATI CNS:  
 CLASS: G01N-033/50A; G01N-033/68B; C12Q-001/68B; C07K-014/47B  
 DESI GNATED COUNTRY ES: AE; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH;  
 CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID;  
 IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG;  
 MK; MN; MM; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR;  
 TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM  
 DESI GNATED REGIONAL: GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AT; BE;  
 CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF;  
 CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

4/3, K/10 (Item 9 from file: 399)

DI ALCG(R) Fi le 399: CA SEARCH(R)  
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123274918 CA: 123(21) 274918x CONFERENCE PROCEEDING  
 Uptake and localization of phosphodiester and chimeric  
 oligodeoxynucleotides in normal and leukemic primary cells  
 AUTHOR(S): Krieg, Arthur M  
 LOCATI ON: Department Internal Medicine, University Iowa, Iowa, IA, USA  
 JOURNAL: Delivery Strategies Antisense Oligonucleotide Ther. EDITOR:  
 Akhtar, Saghir (Ed), DATE: 1995 PAGES: 177-90 CODEN: 61RXAX LANGUAGE:  
 English PUBLISHER: CRC, Boca Raton, Fl a

4/3, K/11 (Item 10 from file: 399)

DI ALCG(R) Fi le 399: CA SEARCH(R)  
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119173523 CA: 119(17) 173523b JOURNAL  
 Comparison of cellular binding and uptake of antisense phosphodiester,  
 phosphorothioate, and mixed phosphorothioate and methyl phosphonate  
 oligonucleotides  
 AUTHOR(S): Zhao, Qianyan; Matson, Sara; Herrera, Charles J.; Fisher, Eric;  
 Yu, Hong; Krieg, Arthur M  
 LOCATION: Coll. Med., Univ. Iowa, Iowa City, IA, USA

JOURNAL: Antisense Res. Dev. DATE: 1993 VOLUME: 3 NUMBER: 1 PAGES:  
 53-66 CODEN: AREDEI ISSN: 1050-5261 LANGUAGE: English  
 ? ds

Set	Items	Description
S1	592	E1-E12
S2	0	S1 AND TGTGCGTTTGACGTTTGTGCGT
S3	13	S1 AND PHOSPHODI ESTER
S4	11	RD (unique items)

? e au=samulowtz, urrike?

Ref	Items	Index-term
E1	4	AU=SAMULOW TZ, U
E2	25	AU=SAMULOW TZ, ULRI KE
E3	0	* AU=SAMULOW TZ, URRIKE?
E4	1	AU=SAMULOWSKA, BARBARA
E5	2	AU=SAMULOWSKI, W
E6	1	AU=SAMULS S
E7	1	AU=SAMULSEN, DM
E8	3	AU=SAMULSKA EVA
E9	2	AU=SAMULSKA H
E10	2	AU=SAMULSKA H M
E11	2	AU=SAMULSKA HANNA
E12	2	AU=SAMULSKA J

Enter P or PAGE for more

? e au=samulowtz, urrike?

Ref	Items	Index-term
E1	1	AU=SAMULOW TZ, M CHAEIL
E2	4	AU=SAMULOW TZ, U
E3	0	* AU=SAMULOW TZ, ULRI K?
E4	25	AU=SAMULOW TZ, ULRI KE
E5	1	AU=SAMULOWSKA, BARBARA
E6	2	AU=SAMULOWSKI, W
E7	1	AU=SAMULS S
E8	1	AU=SAMULSEN, DM
E9	3	AU=SAMULSKA EVA
E10	2	AU=SAMULSKA H
E11	2	AU=SAMULSKA H M
E12	2	AU=SAMULSKA HANNA

Enter P or PAGE for more

? s e4

? s e4  
S5 25 AU=SAMULOW TZ, ULRI KE'

? s s5 and phosphodi ester

25 S5

37178 PHOSPHODI ESTER

S6 3 S5 AND PHOSPHODI ESTER

? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S7 3 RD (unique items)

? t s7/3, k/1-3

>>>KWC option is not available in file(s): 399

7/3, K 1 (Item 1 from file: 399)

DI ALOC(R) File 399: CA SEARCH(R)

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150258230 CA: 150(13) 258230U PATENT

Combination motif immune stimulatory oligonucleotides with improved activity

INVENTOR(AUTHOR): Uhlmann, Eugen; Krieg, Arthur M.; Hanson, Douglas Charles; Samulowitz, Ulrike

LOCATI ON: USA

ASSIGNEE: Pfizer Inc.; Coley Pharmaceutical Group, Inc.; Coley

Pharmaceutical GmbH

PATENT: PCT International ; WO 200922215 A1 DATE: 20090219

APPLI CATI ON: WO 20081 B2102 (20080805) \*US 2007PV964477 (20070813)

PAGES: 73pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

I PCP/ 8 + Level	Va lue	Po si on	S tatus	Versi on	Action	Source	Office:
A61K-0031/7088	A	I	F	B	20060101	H	EP
C12N-0015/11	A	I	L	B	20060101	H	EP

DESI GNATED COUNTRI ES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;  
 BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES;  
 FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN;  
 KP; KR; KZ; LA; LC; LK; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MK;  
 MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG;  
 SK; SL; SM; ST; SY; TJ; TM; TN; TR; DESI GNATED REGI ONAL: AT; BE; BG; CH;  
 CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV;  
 MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; OM; GA; GN;  
 GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MV; MZ; NA; SD; SL; SZ;  
 TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

7/3, K/2 (Item 2 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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145291047 CA: 145(15) 291047J PATENT

Immuno stimulatory oligonucleotides with stabilized internucleotide linkage for treating cancer, allergy, asthma and infection

INVENTOR(AUTHOR): Krieg, Arthur M.; Samulowitz, Ulrike; Vollmer, Joerg  
LOCATI ON: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH

PATENT: PCT International ; WO 200691915 A2 DATE: 20060831

APPLI CATI ON: WO 2006US6778 (20060224) \*US 2005PV655931 (20050224)

PAGES: 93pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATI ONS:

CLASS: A61K-000/A

DESI GNATED COUNTRI ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;  
 BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB;  
 GE; GH; GM; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LC; LK;  
 LR; LS; LT; LU; LV; LY; MA; MD; MG; MN; MW; MK; MZ; NA; NG; NI; NO; NZ;  
 OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR;  
 TT; TZ; UA; US; UZ; VN; YU; ZA; DESI GNATED REGI ONAL: AT; BE; BG; CH;  
 CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC;  
 NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; OM; GA; GN; GQ; GW; M;  
 MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MV; MZ; NA; SD; SL; SZ; TZ; UG; ZM;  
 ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

7/3, K/3 (Item 3 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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140230578 CA: 140(15) 230578H PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for  
immune related diseases

I INVENTOR(AUTHOR): Krieg, Arthur M.; Samulowitz, Ulrike; Vollmer, Joerg;  
 Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert  
 LOCATI ON: USA

ASSIGNEE: Colley Pharmaceutical Group, Inc.; Colley Pharmaceutical GmbH

PATENT: PCT International; WO 200416805 A2 DATE: 20040226

APPLI CATI ON: WO 20030525935 (20030819) \*US PV404479 (20020819) \*US  
 PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSI FI CATI ONS:

CLASS: C12Q-000/A

DESI GNATED COUNTRI ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
 SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU;  
 ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESI GNATED REG ONAL: GH; GM; KE  
 LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK;  
 EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;  
 BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG  
 ? e au=vol lmer , j ?

Ref	Items	Index-term
E1	1	AU=VOLLMER, J*
E2	1	AU=VOLLMER, J-Y
E3	0	*AU=VOLLMER, J?
E4	1	AU=VOLLMER, JAMES
E5	6	AU=VOLLMER, JAMES M
E6	16	AU=VOLLMER, JAMES M
E7	2	AU=VOLLMER, JAMES M CHAEL
E8	1	AU=VOLLMER, JANICE
E9	1	AU=VOLLMER, JANS JUERGEN
E10	2	AU=VOLLMER, JASON
E11	1	AU=VOLLMER, JEAN P.
E12	3	AU=VOLLMER, JEAN PI ERRE

Enter P or PAGE for more

? e au=vol lmer , j org

Ref	Items	Index-term
E1	1	AU=VOLLMER, JOHN JOCHEN
E2	8	AU=VOLLMER, JOHN W
E3	24	*AU=VOLLMER, JORG
E4	1	AU=VOLLMER, JORG HEINZ
E5	1	AU=VOLLMER, JOSEPH
E6	2	AU=VOLLMER, JOSEPH G
E7	2	AU=VOLLMER, JOSEPH GERARD
E8	1	AU=VOLLMER, JOSEPH H.
E9	1	AU=VOLLMER, JOSEPH HARRY
E10	3	AU=VOLLMER, JR., H. D.
E11	3	AU=VOLLMER, JUDITH
E12	15	AU=VOLLMER, JUERGEN

Enter P or PAGE for more

? s e3- e4

24	AU=VOLLMER, JORG
1	AU=VOLLMER, JORG HEINZ
S8	25 E3-E4

? s s8 and phosphodi ester

25	S8
37178	PHOSPHODI ESTER
S9	1 S8 AND PHOSPHODI ESTER

? rd

&gt;&gt;&gt;Duplicate detection is not supported for File 393.

&gt;&gt;&gt;Duplicate detection is not supported for File 391.

&gt;&gt;&gt;Records from unsupported files will be retained in the RD set.

S10 1 RD (unique items)

? t s10/3,k/1

&gt;&gt;&gt;KWC option is not available in file(s): 399

10/3, K/1 (Item 1 from file: 399)

DI ALCG(R) FILE 399: CA SEARCH(R)

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138203655 CA: 138(14)203655H PATENT

Ciguonucleotides containing stimulatory phosphorothioate motif and  
neutralizing motif for treating infections, allergies and cancers

INVENTOR(AUTHOR): Krieg, Arthur M.; Volmer, Jorg; Uhlmann, Eugen

LOCATI ON: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH.

; University of Iowa Research Foundation

PATENT: PCT International ; WO 200315711 A2 DATE: 20030227

APPLI CATION: WO 2002US26468 (20020819) \*US PV313273 (20010817) \*US

PV393952 (20020703)

PAGES: 115 pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFI CATION(S):

CLASS: A61K-000/A

DESI GNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
LV; MA; MD; MG; MN; MW; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SD; SE;  
SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ;  
BY; KG; KZ; MD; RU; TJ; TM DESI GNATED REG CNAL: GH; GM; KE; LS; MW; MZ; SD;  
SL; SZ; TZ; US; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR;  
GB; GR; IE; IT; LU; MC; NL; PT; SE; SK; TR; BF; BJ; CF; OG; CI; CM; GA; GN;  
GQ; GW; ML; MR; NE; SN; TD; TG  
? e=au=uhlmann, eugen?

Ref	Items	Index-term
E1	565	AU=UHLMANN, EUGEN
E2	2	AU=UHLMANN, EUGEN DR
E3	0	*AU=UHLMANN, EUGEN?
E4	1	AU=UHLMANN, EUGENE
E5	3	AU=UHLMANN, EUGENIE V
E6	8	AU=UHLMANN, EUGENIE V.
E7	2	AU=UHLMANN, EUGENIE VI CTORIA
E8	32	AU=UHLMANN, F
E9	8	AU=UHLMANN, F H
E10	2	AU=UHLMANN, F HERMANN
E11	114	AU=UHLMANN, F.
E12	3	AU=UHLMANN, F. H

Enter P or PAGE for more

? s e1-e3

565 AU=UHLMANN, EUGEN  
2 AU=UHLMANN, EUGEN DR  
0 AU=UHLMANN, EUGEN?

S11 567 E1-E3

? s s11 and phosphodi ester

567 S11

37178 PHOSPHODI ESTER

S12 8 S11 AND PHOSPHODI ESTER

? rd

&gt;&gt;&gt;Duplicate detection is not supported for File 393.

&gt;&gt;&gt;Duplicate detection is not supported for File 391.

&gt;&gt;&gt;Records from unsupported files will be retained in the RD set.

S13 8 RD (unique items)

? t s13/3, k/1-8

&gt;&gt;&gt;KWC option is not available in file(s): 399

13/ 3, K/ 1 (Item 1 from file: 393)

DI ALCG(R) File 393: Beilstein Database - Abstracts

(c) 2008 Beilstein GmbH. All rights. reserv.

Beilstein Abstract Id: 6219964

Title: Influence of the Type of Junction in DNA-3'-Peptide Nucleic Acid  
(PNA) Chimeras on Their Binding Affinity to DNA and RNA

Document Type: Journal Record Type: Abstract

Author: Greiner, Beate; Breipohl, Gerhard; Uhlmann, Eugen

Citation: Helv. Chim. Acta (1999) Series: 82-12, 2151 - 2159 CODEN: HCACAV

Language: English

Abstract Language: English

Author: Greiner, Beate; Breipohl, Gerhard; Uhlmann, Eugen

... Abstract: duplex stabilization was determined to be in the order O-S  
ca. NH<sub>2</sub> reordering the phosphodiester bridge the most  
favored linkage at the DNA/PNA junction. The observed strong  
duplex destabilizing...

13/ 3, K/ 2 (Item 2 from file: 393)

DI ALCG(R) File 393: Beilstein Database - Abstracts

(c) 2008 Beilstein GmbH. All rights. reserv.

Beilstein Abstract Id: 5780737

Title: Nucleotide. XV. Synthesis and Eigenschaften von  
2'-O-t-Butylidemethylsilyl-5'-O-monomethoxytritylribonucleosid-3'-  
phosphotriesters, Ausgangssubstanzen fuer Oligonucleotid-Synt-  
hesen

Document Type: Journal Record Type: Abstract

Author: Silber, Gunter; Flockezi, Dieter; Varma, Rajendra Singh;  
Charubala, Ramamurthy; Uhlmann, Eugen; Pfeiderer,  
Wolfgang

Citation: Helv. Chim. Acta (1981) Series: 64-5, 1704-1716 CODEN: HCACAV

Language: German

Abstract Language: English

Author: Silber, Gunter; Flockezi, Dieter; Varma, Rajendra Singh;  
Charubala, Ramamurthy; Uhlmann, Eugen; Pfeiderer,  
Wolfgang... Abstract: 15-23 with free HO(5') could be obtained by detritylation  
and the 3'-phosphodiester triethyl ammonium salts 24-32 by  
deblocking of the cyanoethyl and the 2,5-di chlorophenyl group  
...

13/ 3, K/ 3 (Item 1 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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150258230 CA: 150(13)258230u PATENT

Combination motif immune stimulatory oligonucleotides with improved  
activity

INVENTOR(AUTHOR): Uhlmann, Eugen; Krieg, Arthur M.; Hanson, Douglas

Charles; Samuelowitz, Ulrike

LOCATI ON: USA

ASSI GNEE: Pfizer Inc.; Coley Pharmaceutical Group, Inc.; Coley  
Pharmaceutical G m b. H.

PATENT: PCT International ; WO 200922215 A1 DATE: 20090219

APPLI CATI ON: WO 20081 B2102 (20080805) \*US 2007PV964477 (20070813)

PAGES: 73pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSI FI CATI ONS:

I PCR/ 8 + Level Value Position Status Version Action Source Office:

A61K-0031/7088 A I F B 20060101 H EP

C12N-0015/11 A I L B 20060101 H EP

DESI GNATED COUNTRY ES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;  
 BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES;  
 FI; GB; GD; GE; GH; GM; GT; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN;  
 KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MK;  
 MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG;  
 SK; SL; SM; ST; SV; SY; TJ; TM; TN; TR DESI GNATED REGI ONAL: AT; BE; BG; CH;  
 CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV;  
 MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; OG; CI; OM; GA; GN;  
 GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ;  
 TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

13/3, K/4 (Item 2 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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150001273 CA: 150(1)1273u PATENT

PCR sequences of oligoribonucleotides for disease treatment

INVENTOR(AUTHOR): Vollmer, Joerg; Uhlmann, Eugen

LOCATI ON: Germany,

ASSI GNEE: Coley Pharmaceutical G m b. H.

PATENT: PCT International ; WO 2008139262 A2 DATE: 20081120

APPLI CATI ON: WO 20071 B4593 (20071026) \*US 2006PV854585 (20061026)

PAGES: 110pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSI FI CATI ONS:

I PCR/ 8 + Level Value Position Status Version Action Source Office:

C12N-0015/11 A I F B 20060101 H EP

A61K-0031/7088 A I L B 20060101 H EP

C07H-0021/02 A I L B 20060101 H EP

DESI GNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BH; BR; BW;  
 BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES; FI;  
 GB; GD; GE; GH; GM; GT; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP;  
 KR; KZ; LA; LG; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MK; MY;  
 MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG; SK;  
 SL; SM; SV; SY; TJ; TM; TN; TR; TZ DESI GNATED REGI ONAL: AT; BE; BG; CH;  
 CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC;  
 MT; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; OG; CI; OM; GA; GN; GQ; GW;  
 ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG;  
 ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

13/3, K/5 (Item 3 from file: 399)

DI ALCG(R) File 399: CA SEARCH(R)

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142462266 CA: 142(25)462266Z PATENT

Op G immunostimulatory nucleic acids and oligonucleotide analogs for  
 enhancing immune response of vaccines against infection, allergy and  
 cancerINVENTOR(AUTHOR): Uhlmann, Eugen; Vollmer, Joerg; Krieg, Arthur M; Noll,  
 Bernhard O.

LOCATI ON: Germany,

ASSI GNEE: Col ey Ph a r m a ceut i cal G m b. H.; Col ey Ph a r m a ceut i cal G roup, I n c.

PATENT: PCT International; WO 2005042018 A2 DATE: 20050512

APPLI CATI CN: WO 2004US36240 (20041029) \*US 2003PV516193 (20031030)

PAGES: 113 pp. CODEN: PI XXD2 LANGUAGE: Eng l i sh

PATENT CLASSI FI CATI ONS:

CLASS: A61K 039/39A; A61P-031/00B; A61P-037/08B; A61P-035/00B

DESI GNATED COUNTR ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW DESI GNATED REGI ONAL: BW; GH; GM; KE; LS; MN; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

13/ 3, K/ 6 (Item 4 from file: 399)

DI ALCG(R) FILE 399; CA SEARCH(R)

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142372464 CA: 142(20) 372464H PATENT

Composi tions comprising im munostimulatory nucleic acid d i pophili c conjugates and antigen or therapeutic agent for treating allergy, cancer, infection and auto immune di sease

I NVENTOR/AUTHOR: Vollmer, Joerg; Krieg, Arthur M; Uhlmann, Eugen

LOCATI ON: USA

ASSI GNEE: Col ey Ph a r m a ceut i cal G roup, I n c.; Col ey Ph a r m a ceut i cal G rnbH

PATENT: PCT International; WO 2005032059 A2 DATE: 20050407

APPLI CATI CN: WO 2004US31748 (20040927) \*US 2003PV505977 (20030925)

PAGES: 120 pp. CODEN: PI XXD2 LANGUAGE: Eng l i sh

PATENT CLASSI FI CATI ONS:

CLASS: A61K 047/48A

DESI GNATED COUNTR ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW DESI GNATED REGI ONAL: BW; GH; GM; KE; LS; MN; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

13/ 3, K/ 7 (Item 5 from file: 399)

DI ALCG(R) FILE 399; CA SEARCH(R)

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140230578 CA: 140(15) 230578H PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for immune related di seases

I NVENTOR/AUTHOR: Krieg, Arthur M; Samulowitz, Ulrike; Vollmer, Joerg; Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert

LOCATI ON: USA

ASSI GNEE: Col ey Ph a r m a ceut i cal G roup, I n c.; Col ey Ph a r m a ceut i cal G rnbH

PATENT: PCT International; WO 200416805 A2 DATE: 20040226

APPLI CATI CN: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US

PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: PI XXD2 LANGUAGE: Eng l i sh

PATENT CLASSI FI CATI ONS:

CLASS: C12Q 000/A

10644052cpg.txt

DESI GNATED COUNTRY ES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MN; MW; MK; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
 SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU;  
 ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESI GNATED REG ONAL: GH; GM; KE  
 .LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW AT; BE; BG; CH; CY; CZ; DE; DK;  
 EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;  
 BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

13/ 3, K/ 8 (Item 6 from file: 399)  
 DI ALGO(R) File 399: CA SEARCH(R)  
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93114908 CA: 93(11)114908c JOURNAL  
 New improvements in oligonucleotide synthesis by use of the  
 p-nitrophenyl ethyl phosphat e blocking group and its deprotection by DBU  
 or DBN  
 AUTHOR(S): Uhlmann, Eugen; Pfeiderer, Wolfgang  
 LOCATION: Fac. Chem., Univ. Konstanz, D-7750, Konstanz, Fed. Rep. Ger.  
 JOURNAL: Tetrahedron Lett. DATE: 1980 VOLUME: 21 NUMBER: 13 PAGES:  
 1181-4 CODEN: TELEAY ISSN: 0040-4039 LANGUAGE: English  
 ? eau=lpford, gr?

Ref	Items	Index-term
E1	44	AU=L1 PFORD, GB
E2	3	AU=L1 PFORD, GB*
E3	0	*AU=L1 PFORD, GR?
E4	22	AU=L1 PFORD, GRAYSON
E5	8	AU=L1 PFORD, GRAYSON B
E6	63	AU=L1 PFORD, GRAYSON B.
E7	2	AU=L1 PFORD, GRAYSON BERNARD
E8	2	AU=L1 PFORD, HEATHER
E9	1	AU=L1 PFORD, HEATHER RICHTER
E10	3	AU=L1 PFORD, J.
E11	3	AU=L1 PFORD, J.
E12	11	AU=L1 PFORD, J. R.

Enter P or PAGE for more

? s e1-e6  
 44 AU=L1 PFORD, GB  
 3 AU=L1 PFORD, GB\*  
 0 AU=L1 PFORD, GR?  
 22 AU=L1 PFORD, GRAYSON  
 8 AU=L1 PFORD, GRAYSON B  
 63 AU=L1 PFORD, GRAYSON B.  
 S14 140 E1-E6  
 ? s s14 and phosphodiester  
 140 S14  
 37178 PHOSPHODI ESTER  
 S15 2 S14 AND PHOSPHODI ESTER

? rd  
 >>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.  
 S16 2 RD (unique items)

? t s16/3, k/1-2

>>>KWC option is not available in file(s): 399

16/3, K/1 (Item 1 from file: 24)  
 Di ALG(R) File 24: CSA Life Sciences Abstracts  
 (c) 2009 CSA. All rights reserved.

0002855016 IP ACCESSION NO: 6931820  
 Toll-like receptor 9 binds single-stranded CpG-DNA in a sequence- and pH-dependent manner

Rutz, Mark; Metzger, Jochen; Gellert, Tanja; Luppa, Peter; Lipford, Grayson B; Wagner, Hermann; Bauer, Stefan  
 Institute for Medical Microbiology, Hygiene and Immunology, Munich, Germany, [mailto:stefan.bauer@rz.tum.de]

European Journal of Immunology, v 34, n 9, p 2541-2550, 2004  
 PUBLICATION DATE: 2004

PUBLISHER: Wiley-VCH, Postfach 101161 Weinheim 69451 Germany,  
 [mailto:info@wiley-vch.de], [URL: http://www.wiley-vch.de/publish/en/]

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

ISSN: 0014-2980

FILE SEGMENT: Immunology Abstracts

Rutz, Mark; Metzger, Jochen; Gellert, Tanja; Luppa, Peter; Lipford, Grayson B; Wagner, Hermann; Bauer, Stefan

#### ABSTRACT:

... that TLR9 binds directly and sequence-specifically to single-stranded unmethylated CpG-DNA containing a phosphodiester backbone. TLR9-CpG-DNA interaction occurs at the acidic pH (6.5-5.0) found...

16/3, K/2 (Item 1 from file: 399)

Di ALG(R) File 399: CA SEARCH(R)  
 (c) 2009 American Chemical Society. All rights reserved.

140230578 CA: 140(15)230578h PATENT

Sequences of immunostimulatory oligonucleotides and therapeutic use for immune related diseases

INVENTOR(AUTHOR): Krieg, Arthur M; Samolowitz, Ulrike; Vollmer, Joerg; Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert

LOCATION: USA

ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GrpH

PATENT: PCT International; WO 200416805 AD: DATE: 20040226

APPLICATION: WO 2003US25935 (20030819) \*US PV404479 (20020819) \*US PV404820 (20020819) \*US PV429701 (20021127) \*US PV447377 (20030214)

PAGES: 276 pp. CODEN: PI XXD2 LANGUAGE: English

PATENT CLASSIFICATION:

CLASS: C12Q 000/A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; LZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG  
 ? e au=rankin, rob?

## 10644052cpg.txt

Ref	Items	Index-term
E1	7	AU=RANKI N, RN
E2	2	AU=RANKI N, RN*
E3	0	* AU=RANKI N, ROB?
E4	1	AU=RANKI N, ROBB E.
E5	23	AU=RANKI N, ROBERT
E6	4	AU=RANKI N, ROBERT A.
E7	5	AU=RANKI N, ROBERT A.
E8	1	AU=RANKI N, ROBERT C.
E9	1	AU=RANKI N, ROBERT CARTER
E10	1	AU=RANKI N, ROBERT EDWARD
E11	1	AU=RANKI N, ROBERT JOHN, JR.
E12	8	AU=RANKI N, ROBERT L.

Enter P or PAGE for more

? s e1-e12

7	AU=RANKI N, RN
2	AU=RANKI N, RN*
0	* AU=RANKI N, ROB?
1	AU=RANKI N, ROBB E.
23	AU=RANKI N, ROBERT
4	AU=RANKI N, ROBERT A.
5	AU=RANKI N, ROBERT A.
1	AU=RANKI N, ROBERT C.
1	AU=RANKI N, ROBERT CARTER
1	AU=RANKI N, ROBERT EDWARD
1	AU=RANKI N, ROBERT JOHN, JR.
8	AU=RANKI N, ROBERT L.

S17 54 E1-E12

? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S18 46 RD (unique items)

? s s18 and phosphodiester

46 S18

37178 PHOSPHODI ESTER

S19 1 S18 AND PHOSPHODI ESTER

? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S20 1 RD (unique items)

? t s20/3,k/1

>>>KWC option is not available in file(s): 399

20/3,K/1 (Item 1 from file: 399)

DI ALCG(R) File: 399: CA SEARCH(R)

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Sequences of immunostimulatory oligonucleotides and therapeutic use for immune related diseases

INVENTOR/AUTHOR: Krieg, Arthur M.; Samowitz, Urike; Vollmer, Joerg; Uhlmann, Eugen; Jurk, Marion; Lipford, Grayson; Rankin, Robert  
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ASSIGNEE: Celox Pharmaceutical Group, Inc.; Celox Pharmaceutical GmbH

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GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
LV; MA; MD; MG; MK; MN; MW; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU;  
SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU;  
ZA; ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; DESIGNATED REGIONAL: GH; GM; KE  
.LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW AT; BE; BG; CH; CY; CZ; DE; DK;  
EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;  
BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG